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## Freeze Up Cheap Spring Eggs

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*They Can Replace  
Higher Priced Fall and  
Early Winter Ones for  
Cooking*

By GEORGE F. STEWART



*Freeze Up*

## CHEAP SPRING EGGS

**W**HEN EGGS are about a penny apiece, it takes a lot of them to pay the family grocery bill. And this spring they have skidded down to about that price in many Iowa communities. Next fall and early winter, prices are pretty likely to be much higher if they follow their usual trend.

We have been doing a little experimental work here at the Iowa Station in freezing eggs for storage in cold storage lockers, and some of you may wish to try it if you have many cheap eggs now. These frozen eggs may come in handy for cooking next fall and early winter if your supply gets low then, or you may find it profitable to cook with these "last spring" eggs and sell your fresh fall and winter eggs on the market.

In our work with the freezing of eggs, we have largely followed the practices which commercial concerns have been using for years.

Storing frozen eggs commercially has been practiced about 40 years. So there's nothing startling new about what we have done. Today about 40 percent of the stored eggs are frozen, according to the United States Bureau of Agricultural Economics' figures for 1938. The commercial frozen eggs are used largely by bakers, candy makers, noodle and mayonnaise manufacturers. These food manufacturers like frozen eggs because they can buy the part of the egg they want and not have to worry about disposing of the rest of it. That is, if they want only yolks, they can buy just that; if they want only whites, they can get them.

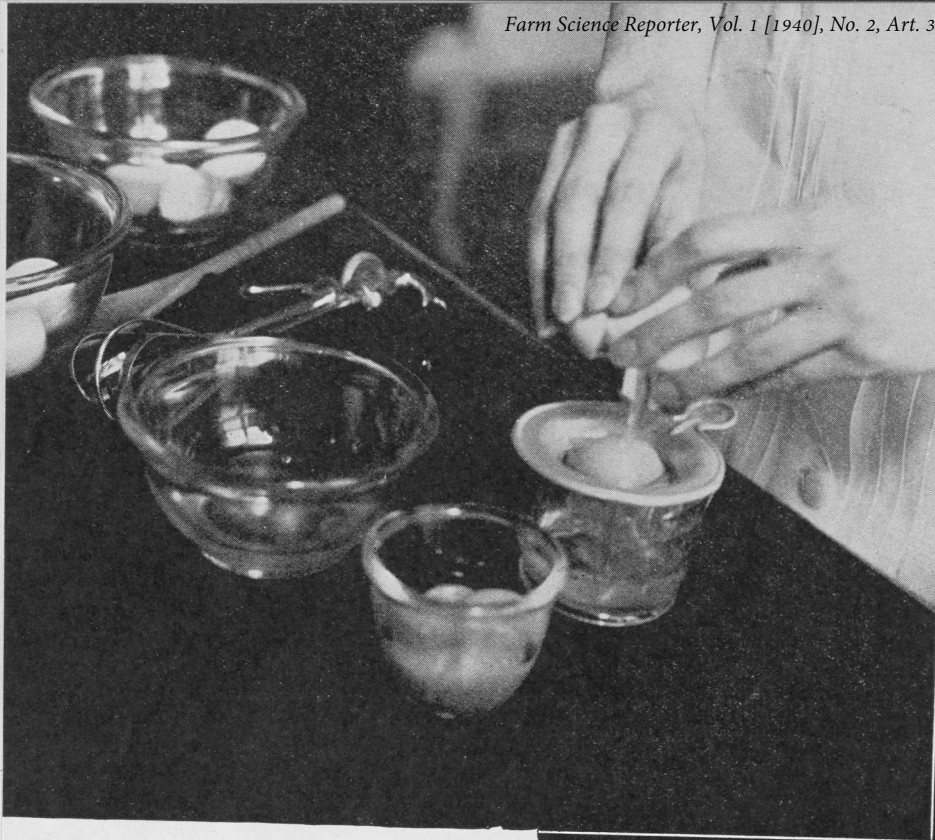
Those who freeze eggs commercially found long ago—and you've probably found it out too from the frozen eggs you have brought in from the chicken house or barn—that if you freeze egg yolks just as the hen lays them, they are a

"mess" when they thaw out. They are thick, gummy and tasteless, not at all like fresh yolks.

To avoid this condition, the yolks must be mixed with salt, or with corn sirup or honey. When one of these is added, the yolks come out about as they were when you stored them. The preparation of eggs for locker storage is not difficult. The rules are as follows:

### The Rules Are—

1. Separate the yolks from the whites, using the egg shell or a dime store egg separator as shown.
2. The whites need no treatment whatsoever and may be placed immediately into a container for storage.
3. The yolks should be placed in a deep bowl and thoroughly mixed (an egg beater may be used if care is taken not to whip in air).



Left: Separating yolks and whites preparatory to freezing and storing of them.

Bottom: The yolks have been stirred and now salt, sirup or honey is added to them.

than 48 hours even though they are in the refrigerator because of the danger of souring. Thawed whites may be kept as long as a week in the refrigerator before they are used without undergoing any serious change.

These thawed yolks and whites may be used just as you now use fresh egg whites and yolks. For convenience you may use the following figures for estimating the amounts of yolk or white corresponding to one egg.

4. We now mix with the yolks one of the following:

- a. Salt—1 teaspoon to every 2 cups of yolk
- b. Corn sirup—1 tablespoon to every 2 cups of yolk
- c. Honey—1 tablespoon to every 2 cups of yolk

Whether you use salt, sirup or honey will depend on your preference when using the egg. Most all recipes will work well with the salted yolk. A few foods, such as scrambled eggs, cannot be made so well with the sweetened yolk, but sweetened yolk works fine with baked goods or mayonnaise.

5. The yolks are now ready for packaging for the freezer. We find the waxed cartons work best, but you may use glass jars, or tin cans. The glass, wax and tin offer good protection against drying out in the locker. If covers are not available for the tin cans, the *frozen egg* may be covered with a small amount of water which will protect the surface from drying. All containers should be filled to within only an inch of the top to allow for expansion.

Once the eggs are prepared and in the containers they should be frozen promptly. The yolk is likely to sour rapidly when held above freezing. The whites do not spoil



so easily, as most of you probably know. The eggs are first placed in the freezer room and later transferred to the locker after they are frozen.

Egg yolks and whites may be taken home as you need them, thawing and keeping them in the refrigerator, or if you are in a hurry they may be thawed in warm water (100–120° F.). We find that it is not safe to keep thawed yolks more

1½ tablespoons of white equals the white of one egg.

1 tablespoon of yolk equals the yolk of one egg.

Where the whole mixed egg is desired, one merely adds 1½ tablespoons of white to 1 tablespoon of yolk. Some may want to mix the whole eggs before freezing, and this works very well. They must be mixed the same as yolks alone—with salt, sirup or honey.



Egg yolks and whites prepared in the manner suggested above, we find may be stored a full year without loss of quality in lockers operating at not higher than 5° above zero. There seems to be little loss in quality.

We urge you who have been short on cooking eggs at certain times of the year to try putting away in your lockers a few cartons of whites and treated yolks while eggs are cheap this spring. We believe you will be in for a pleasant surprise when you try these frozen eggs for desserts and salad dressings.

## Frozen Eggs Work Well for Cooking

**I**T'S ALL very well to store away these frozen eggs if they really will work as well in cooking as fresh ones.

So the editor put the question to Miss Belle Lowe, professor of foods and nutrition at Iowa State College, who has been carrying on cooperative cooking tests with the eggs which had been frozen and stored in lockers in Ames and Des Moines under Dr. Stewart's direction. Here is what she said:

"For years we have made our angel food cakes at the college from frozen whites. They are every bit as satisfactory as fresh whites, and one is not confronted with the problem of finding a place to use the left-over yolks. We find the whites purchased alone represent a saving financially. If one is buying frozen eggs they can be purchased in 10 or 30-pound cans. With our large classes the 10-pound cans provide satisfactory quantities.

"The yolks have been used entirely satisfactorily for the making of mayonnaise salad dressing, custards and, in fact, any other way in which yolks are used in cooking.

"Our tests to date indicate that frozen eggs—whites alone, yolks alone, or the mixed yolks and whites—will work just as well in cooking as fresh eggs. About the only difference we have been able to observe is that with frozen eggs you can't have fried eggs, poached eggs or boiled eggs alone. But you can have perfectly satisfactory scrambled eggs."



Pouring from the spoon in the left hand is egg yolk frozen after salt was added. The right hand spoon contains yolks frozen with nothing added. They are gummy, tasteless

## Eggs in Water-Glass

**A**NOTHER METHOD of storing eggs when they are cheap is by using water-glass.

The method is still good. Water-glass in Ames costs around 75 cents a gallon. It is ordinarily diluted with about 9 parts of water. That is, to 1 part of water-glass are added 9 parts of water. Ten quarts of the solution will take care of about 15 dozen eggs.

The main points in storing in water-glass seem to be:

1. The water-glass solution should be mixed so that the eggs will just barely sink (water can be added carefully until this density is reached).
2. Boiled water should be used.
3. Start with eggs

Frozen yolks can be used in cooking just as well as fresh ones, tests by food specialists show.

that are clean, fresh and of good quality. Store them the day they are laid.

4. Keep the stored eggs in the coolest place available—one of the old type caves is about the best.

